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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,864	05/22/2001	John Courtney	0673-1028	1085
23644	7590	07/13/2005	EXAMINER	
BARNES & THORNBURG			KHUONG, LEE T	
P.O. BOX 2786			ART UNIT	PAPER NUMBER
CHICAGO, IL 60690-2786			2665	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/862,864

Applicant(s)

COURTNEY ET AL.

Examiner

Lee Khuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/7/2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "40" in Fig. 3 has been used to designate both "delay element" and "buffer". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. The claimed invention is directed to non-statutory subject matter. In claim 21, line 1 and line 6 are related to a system claim and a method claim, respectively. It is improper to have an independent claim with a combination of both a system and method limitations within an independent apparatus claim. It is suggested that the word "method" to be changed to "system" in claim 21.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Sawey et al (US 6,195,330) hereinafter referred as Sawey.

**Regarding claims 1-9, 12-20,** Sawey discloses a Hitless Protection Switching apparatus:

a) *receive data signals on a main transmission path and at least on stand-by transmission path (7 and 9, Fig. 3, a working and a protection paths), each path carrying, in use, a substantially identical data signal (see col. 9, lines 32-50) and to output data from a selected (30, Fig. 1) one of said transmission paths (see col. 6, line 66 – col. 7, line 10), each data frame comprising at least one data element, the apparatus including:*

b) *a selector mechanism for selecting between transmission paths (30, Fig. 1, see col. 6, line 66- col. 7, line 10), wherein each data element is associated with an identifier (indicator) that identifies to which data frame it belongs (see col. 5, lines 10-19),*

c) *the apparatus being arranged to align the respective data signals received on said transmission paths (see col. 5, lines 20-41, **alignment**) so that said selector mechanism is able to select between a respective data element from each path wherein the associated identifiers of*

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*said respective data elements indicate that said respective data elements belong to the same data frame (see col. 1, line 62 – col. 2, line 14, col. 9, lines 32-50 and col. 10, lines 48-54).*

**Regarding claim 2,** Sawey discloses *wherein said signal alignment is achieved by buffering the received signal (see col. 5, lines 20-41).*

**Regarding claim 4,** Sawey discloses

*a) each element of each received data signal is associated with a tag indicating the position of the element in the data signal (see col. 5, lines 10-19),*

*b) the selector mechanism being arranged to select between elements having corresponding tags (markers) (see col. 10, lines 48-54), and*

*c) to cause said output data to comprise said selected elements in sequential order according to the positional information indicated by the respective tags (see col. 6, lines 51-65).*

**Regarding claim 5,** Sawey discloses *wherein the selector mechanism being arranged to select between corresponding signal elements on a frame-by-frame basis (see col. 10, lines 48-54).*

**Regarding claim 6,** Sawey discloses *wherein said signal elements comprise data containers (see col. 9, lines 32-50).*

**Regarding claims 7 and 22**, Sawey discloses *tags comprise virtual concatenation overhead bits* (see col. 1, lines 41-61, **marker with overhead bytes**).

**Regarding claim 9**, Sawey discloses *wherein the apparatus is arranged to store the elements of each received data signal in a respective data buffer* (see col. 5, lines 20-28).

**Regarding claim 10**, Sawey discloses *wherein the data buffers are implemented in one or more memory devices* (22, 24, Fig. 3, see col. 5, lines 20-28).

**Regarding claim 11**, Sawey discloses *wherein the data buffers are implemented in Random Access Memory (RAM)* (see col. 5, lines 42-52).

**Regarding claim 12**, *the selector mechanism comprises a switching controller arranged to select between transmission paths, and a switch device arranged to retrieve one or more signal elements from the data buffer corresponding to the selected transmission path and to cause the order each retrieved signal element to be output* (see col. 1, line 62 – col. 2, line 14).

**Regarding claim 13**, Sawey discloses *the switching controller is arranged to select between transmission paths in respect of each signal element* (see col. 10, lines 48-54).

**Regarding claim 15**, Sawey discloses *the switch device comprises a memory reading device* (see col. 5, lines 42-52).

**Regarding claims 17 and 18,** Sawey discloses *a synchronous transmission apparatus comprising a switching apparatus, being arranged for use in a synchronous transmission system (see col. 2, lines 55-67).*

**Regarding claim 19,** Sawey discloses

a) *a first synchronous transmission apparatus (Fig. 2, see col. 2, lines 55-67) arranged to transmit data signals across a network on at least two transmission paths (see col. 4, lines 9-19), each data signal being comprised of data frames (see col. 9, lines 32-50), each data frame comprising at least one data element (see col. 9, lines 32-50); and*

b) *a second synchronous transmission apparatus arranged to receive said data signals on said at least two paths (Fig. 2, see col. 2, lines 55-67),*

c) *wherein the first synchronous transmission apparatus is arranged to associate each element of each transmitted data signal with an identifier that identifies to which data frame it belongs (see col. 10, lines 48-54), and*

d) *wherein said second synchronous transmission apparatus comprises a switching apparatus according to claim 1 (see col. 2, lines 55-67).*

**Regarding claim 21,** Sawey discloses a Hitless Protection Switching system (see Fig. 2) comprising:

a) *a first synchronous transmission apparatus (Fig. 2, see col. 2, lines 55-67) arranged to transmit data signals across a network on at least two transmission paths (see col. 4, lines 9-19),*

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*each data signal being comprised of data frames (see col. 9, lines 32-50), each data frame comprising at least one data element (see col. 9, lines 32-50); and*

*b) a second synchronous transmission apparatus arranged to receive said data signals on said at least two paths (Fig. 2, see col. 2, lines 55-67), a system of switching between transmission paths, the system comprising:*

*i) associating, at said first synchronous transmission apparatus, identifier with each element of said data signals (see col. 10, lines 48-54), the identifier indicating which frame the data belongs (see col. 10, lines 48-54);*

*ii) selecting, at said second synchronous transmission apparatus, between transmission paths by selecting between a respective data element from each path wherein the associated identifiers of said respective data elements indicate that said respective data elements belong to the same data (see col. 6, line 66 – col. 7, line 10); and*

*iii) outputting said selected signal elements in sequential order according to the information indicated by the respective identifiers (see col. 6, lines 51-65).*

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various



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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawey in view of Potter et al. (US 6,674,755) hereinafter is referred as Potter.

**Regarding claims 8 and 14,** Sawey discloses all limitations set forth in the rejection of claim 1.

Sawey does not expressly discloses *said selector mechanism is arranged to compare the quality of said respective data elements and to select the transmission path associated with the data element of better quality.*

Portter discloses a *selector mechanism* (300, Fig. 3, **a selector**) *is arranged to compare the quality of said respective data elements and to select the transmission path associated with the data element of better quality* (see col. 6, lines 54-67).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to employ the SONET ring as taught by Potter into Sawey to arrive the claimed invention as specified in claims 8 and 14.

The suggestion/motivation for doing so would have been to provide an efficient high capacity switching in a telecommunication network (see col. 2, lines 4-14).

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**Regarding claim 16**, Sawey discloses all claimed limitations set forth in the rejection of claim 1. Sawey does not expressly disclose *storing information concerning the quality of at least one element of each received data signal*.

Portter discloses *storing information concerning the quality of at least one element of each received data signal* (see col. 7, lines 1-16).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to employ the storing of quality indicator in a memory as taught by Potter into Sawey to arrive the claimed invention as specified in claim 16.

The suggestion/motivation for doing so would have been to provide an efficient high capacity switching in a telecommunication network (see col. 2, lines 4-14).

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1, 19, 20 and 21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Khuong whose telephone number is 571-272-3157. The examiner can normally be reached on 9AM - 5PM.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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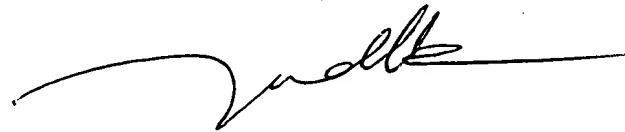
12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lee T. Khuong

Examiner

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